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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,801	07/09/2003	Makoto Sumi	08830.0009	8010

7590 11/05/2004

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EXAMINER

TRAN, HUAN HUU

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/614,801

Applicant(s)

SUMI ET AL.

Examiner

Huan H. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-5, 27-30 and 34 is/are rejected.
- 7) ☒ Claim(s) 6-17, 20-26, 31-33 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/12/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is not understandable with respect to the limitation "a conveyance section for conveying the thermal development photosensitive material with the heating section". Is it meant "for conveying the thermal development photosensitive material to the heating section" ?

Claim 2 is indefinite regarding the recitation in the same claim of a narrower range and a broad range. MPEP 2173.05(c) (I).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 3, 4, 5, 27, 28, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Star et al. (US Patent No. 6007971) in view of Torino et al. (Reissue Patent No. 33770).

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With respect to claim 1, Star et al. discloses a thermal development apparatus comprising:
a heating section (see thermal processor 10 at Col. 13, lines 12 to Col. 14, line 21)) for heating thermal development photosensitive material (12) within which a latent image is established, and maintaining the thermal development photosensitive material at thermal development temperature; and
a conveyance section (film staging mechanism 132 at Col. 29, line 1) for conveying the thermal development photosensitive material with the heating section (note the rejection of claim 1 under 35 USC 112, 2nd);

wherein the heating section comprises a cylindrical sleeve (aluminum tube 36) , a heating source (heater blanket 32 at Col. 19, line 55) provided inside of the cylindrical sleeve, and a resilient member (resilient layer 38) on an external surface of the cylindrical sleeve.

Star et al. does not disclose the limitation “the resilient member comprises a smooth layer on its outermost surface”

Torino et al. discloses a heating section (heating roll 102) comprising a a cylindrical sleeve (Fig. 2, element 121) , a heating source (Fig. 2, element 123) provided inside of the cylindrical sleeve, and a resilient member (resilient layer 122) on an external surface of the cylindrical sleeve, wherein the resilient member comprises a smooth resin layer (124) on its outermost surface to prevent offset (Col. 5, lines 30-42) .

Therefore, it would have been obvious to one in the art to provide a smooth fluorine resin layer on the outermost surface of a resilient layer on a heating roll as taught by Torino et al. in the heating roll of Star et al. to prevent offset.

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As to claim 2, Torino et al. teaches that a thickness of the release resin layer of 10-50 μm or so (Col. 5, lines 41-42), whereas it is recited in the claim that “wherein thickness of the smooth layer is equal to or more than 30 μm , more preferably 30 μm to 50 μm ”. It is well settled that in the case where the claimed ranges “overlap or lie inside ranges disclosed by the prior art” a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). MPEP 2145.

As to claim 3, Star et al. teaches the limitation “a biasing component for biasing the thermal development photosensitive material against the heating section”. Col. 13, lines 33-39.

As to claim 4, Torino et al. teaches the limitation “wherein the smooth layer has predetermined resistance to chemical reaction” in that the fluorine layer is made highly resistant to peeling off due to predetermined chemical reaction (Col. 7, lines 1-12).

As to claim 5, Torino et al. teaches that the smooth layer is made of a component including fluorine (Col. 5, lines 30-42).

As to claims 27 and 30, Star et al. discloses a thermal development apparatus comprising:
a heating section (see thermal processor 10 at Col. 13, lines 12 to Col. 14, line 21)) for heating and conveying a photothermographic element (12) within which a latent image is established, and maintaining the thermal development photosensitive material at thermal development temperature; and

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a cooling section (Fig. 10, element 80) for cooling and conveying the heated photothermographic element;

wherein the heating section comprises a heating member (14) including a cylindrical sleeve (aluminum tube 36), a heating source (heater blanket 32 at Col. 19, line 55) provided inside of the cylindrical sleeve, and a resilient member (resilient layer 38) on an external surface of the cylindrical sleeve.

Star et al. does not disclose the limitation "a smooth layer at outermost surface of the resilient member"

Torino et al. discloses a heating section (heating roll 102) comprising a cylindrical sleeve (Fig. 2, element 121), a heating source (Fig. 2, element 123) provided inside of the cylindrical sleeve, and a resilient member (resilient layer 122) on an external surface of the cylindrical sleeve, wherein the resilient member comprises a smooth fluorine resin layer (124) on its outermost surface to prevent offset (Col. 5, lines 30-42).

Therefore, it would have been obvious to one in the art to provide a smooth fluorine resin layer on the outermost surface of a resilient layer on a heating roll as taught by Torino et al. in the heating roll of Star et al. to prevent offset.

As to claims 2 and 28, Torino et al. teaches that a thickness of the release resin layer of 10-50 μm or so (Col. 5, lines 41-42), whereas it is recited in the claim that "wherein thickness of the smooth layer is equal to or more than 30 μm , more preferably 30 μm to 50 μm ". It is well settled that in the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of

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obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). MPEP 2145.

As to claim 29, Torino et al. teaches the limitation "wherein the smooth layer has predetermined resistance to chemical reaction" in that the fluorine layer is made highly resistant to peeling off due to predetermined chemical reaction (Col. 7, lines 1-12).

6. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Star et al. modified by Torino et al. as applied to claim 27 above, and further in view of Kashino et al. (US Patent No. 6262756 cited in the IDS filed on 12/12/03).

Star et al. modified by Torino et al. discloses the claimed invention except for the limitation that the apparatus conveys various size of the photothermographic element.

However, such limitation is taught in Kashino et al. Col. 21, lines 55-57.

It would have been obvious to one in the art to apply the teaching of Kashino et al. into the apparatus of Star et al. modified by Torino et al. to enable the printing on various size of photographic element. It is noted that the shape of the photographic element was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular shape of the photographic element was significant. In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966)

Allowable Subject Matter

7. Claims 18-19 are allowed.

8. Claims 6, 7, 8-10, 11-17, 20-26, 31-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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9. The following is a statement of reasons for the indication of allowable subject matter: As to claims 8-10, 31-33, prior art do not teach or suggest at least the limitation that the thermal development photosensitive material comprises a particle for providing predetermined frictional resistance in a contact surface thereof with the smooth layer.

As to claims 18-19, 11-17, prior art to Star et al. or Torino et al. does not teach or suggest the limitation that the heating section is rotated at a lower speed when the photosensitive material is not conveyed than when the photosensitive material is conveyed.

As to claims 20-26, prior art do not teach or suggest the claimed limitation that each of the rotational guide components comprises a component with a high frictional coefficient against the smooth layer of the heating section.

As to claim 6, prior art do not teach or suggest a temperature detecting section for detecting surface temperature of the smooth layer by being in contact with the smooth layer. Note Kashino et al. at Col. 30, lines 20-25.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huan H. Tran whose telephone number is (571) 272-2261. The examiner can normally be reached on at work on W-F from 6:30 to 5; T are telework days.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Talbot can be reached on (571) 272-1934. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nuan H. Tran
Primary Examiner
Art Unit 2861

hht
10/28/04